WHAT IS CLAIMED IS:

1. A method for utilizing a continuous mode laser driver circuit for a burst mode application, comprising:

Selecting a continuous mode laser driver chip, wherein the chip has a temperature compensation output and a pulse width adjustment input, and the chip is used to drive a laser diode to generate a laser light;

converting the temperature compensation signal from the temperature compensation signal output of the chip into a pulse width adjustment signal by a pulse width adjustment circuit, wherein the pulse width adjustment signal is inputed into the pulse width adjustment input, and the pulse width adjustment signal automatically adjusts cross points of the optical eye diagram of the laser output according to environmental temperature, the cross points being maintained at a predetermined level and the bit error rate of system being reduced.

2. The method of claim 1, wherein the step of selecting the continuous mode laser driver chip further has the following requirements:

the laser driver chip is workable in an open loop mode;

the laser driver chip has a bias current setting function;

the laser driver chip has a modulation current setting function; and

the workable frequency, in continuous mode, of the laser driver chip is equal or higher than about 2.5 G Hz even if the laser driver chip is working under a frequency of about 1.5 G Hz in burst mode.

3. The method of claim 1, further comprising repeatedly replacing the pulse width adjustment circuit until the cross points are maintained at the predetermined level.

4. The method of claim 1, wherein the pulse width adjustment circuit is a resistor combination or a conducting wire, and wherein when the acceptable voltage range of the pulse width adjustment input is equal to the voltage range of the temperature compensation signal output, the pulse width adjustment circuit is omitted and the temperature compensation signal output is directly connected to the pulse width adjustment input, and when the acceptable voltage range of the pulse width adjustment input is smaller than the voltage range of the temperature compensation signal output, a resistor combination repeatedly selected is used to connect the temperature compensation output to the pulse width adjustment input until cross points are maintained at the predetermined level.

5. The method of claim 1, wherein variation of the output power of the laser diode versus temperature is about 3 dBm.

6. The method of claim 1, wherein when the temperature is between about 0 and 70 degrees Celsius, laser output power is limited to a range of about –1.5 dBm to 3.5 dBm.

7. The method of claim 1, further comprising:

Adjusting the average laser output power at room temperature, wherein when temperature is between about 0 and 70 degrees Celsius, laser output power is limited to a range of about –1.5 dBm to 3.5 dBm, the lowest laser output power is about –1.5 dBm, the logic level of the optical eye diagram has a variation of an average of about 3dBm in response to the temperature, the modulation current setting input is grounded via a first bias circuit to avoid a situation where laser output power variation versus the temperature exceeds a limited range, so that the laser output power is set at least about 3dBm higher than the lowest laser output power limit; and

adjusting the average laser output power at room temperature when the laser driver chip is turned to off state, wherein when the laser driver chip is turned to off state, the laser output power is not higher than about –43 dBm, the logic level of the optical eye diagram has a variation of an average of about 3dBm in response to the temperature, the bias current setting input is grounded via a second bias circuit to avoid a situation where the laser power variation versus the temperature exceeds a limited range, so that the second bias circuit adjusts the logic 0 level and the laser output power is adjusted to under about –46 dBm.

8. The method of claim 7, wherein the first bias circuit and the second bias circuit are respectively resistor combinations.

9. A laser emitting apparatus for a burst mode application, wherein the laser emitting apparatus comprises:

A laser driver circuit for providing a driving current to a laser diode for emitting a laser light, the laser driver circuit outputting a temperature compensation signal in response to environmental temperature, the laser driver circuit having a pulse width adjustment input for receiving a pulse width adjustment signal to adjust the pulse width; and

a pulse width adjustment circuit connected to the laser driver circuit, the pulse width adjustment circuit receiving the temperature compensation signal to generate the pulse width adjustment signal;

wherein the pulse width is the pulse width of the optical eye diagram of the laser output, the laser driver circuit adjusts cross points of the optical eye diagram by adjusting the pulse width, so that the cross points are maintained at a predetermined level.

10. The laser emitting apparatus of claim 9, wherein the laser driver circuit is a continuous mode laser driver chip, the laser driver chip is workable in an open loop mode, the laser driver chip has a temperature compensation output, the laser driver chip has a pulse width adjustment function, the laser driver chip has a bias current setting function, the laser driver chip has a modulation current setting function, and the workable frequency of the laser driver chip, in continuous mode, is equal or higher than about 2.5 G Hz even if the laser driver chip is working under a frequency of about 1.5 G Hz in burst mode.

11. The laser emitting apparatus of claim 9, wherein when the temperature is between 0 and 70 degrees Celsius, the laser output power is limited to a range of about –1.5 dBm to 3.5 dBm.

12. The laser emitting apparatus of claim 9, wherein when the acceptable voltage range of the pulse width adjustment input is equal to the voltage range of the temperature compensation signal output, the pulse width adjustment circuit is a conducting wire and the temperature compensation signal output is directly connected to the pulse width adjustment input via the conducting wire.

13. The laser emitting apparatus of claim 9, wherein when the acceptable voltage range of the pulse width adjustment input is lower than the voltage range of the temperature compensation signal output, the pulse adjustment circuit is a resistor combination, and the temperature compensation signal output is connected to the pulse width adjustment input via the resistor combination, so that the cross points of the optical eye diagram of the laser output are maintained at a predetermined level.

14. The laser emitting apparatus of claim 9, wherein the maximum variation of the average laser output power within a temperature range is about 3 dBm and the temperature range is between about 0 and 70 degrees Celsius.

15. The laser emitting apparatus of claim 9, further comprising a first bias circuit, the first bias circuit being connected to the modulation current setting input of the laser driver circuit at one terminal and grounded for the other

terminal, wherein the first bias circuit is used to adjust the minimum value of the average laser output power at room temperature, the minimum value of the average laser output power at room temperature is higher than the minimum value of the specification requirement of the laser output power, the difference between the minimum value of the average laser output power at room temperature and the minimum value of the specification requirement of the laser output power is a predetermined difference value, the average laser output power at room temperature is the average laser output power of the laser diode at room temperature, and the value of the specification requirement of the laser output power is a predetermined specification requirement of the laser output power.

16. The laser emitting apparatus of claim 15, wherein the first bias circuit is a resistor combination.

17. The laser emitting apparatus of claim 15, wherein the predetermined difference value is about 3 dBm.

18. The laser emitting apparatus of claim 9, wherein the laser emitting apparatus further comprises a second bias circuit, the second bias circuit is connected to the bias current setting input of the laser driver circuit at one terminal and grounded for the other, the second bias circuit is used to adjust the maximum value of the average laser output power at room temperature, when the laser driver circuit is turned to off state, the value of the average laser output power at room temperature is less than a predetermined specification

requirement of the laser output power, and the difference between the value of the average laser output power at room temperature and the predetermined specification requirement of the laser output power is a predetermined difference.

19. The laser emitting apparatus of claim 18, wherein the second bias circuit is a resistor combination.

20. The laser emitting apparatus of claim 18, wherein the minimum value of the predetermined difference is about 3 dBm.